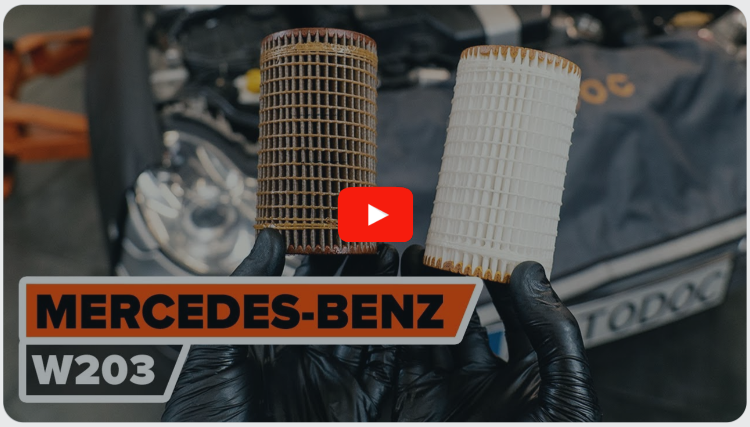
AUTODOC CLUB

How to change engine oil and filter on **MERCEDES-BENZ R-Class (W251, V251) V6** – replacement guide

SIMILAR VIDEO TUTORIAL



This video shows the replacement procedure of a similar car part on another vehicle

Important!

This replacement procedure can be used for:
MERCEDES-BENZ R-Class (W251, V251) R 350 4-matic (251.065, 251.165), MERCEDES-BENZ R-Class (W251, V251) R 500 4-matic (251.075, 251.175), MERCEDES-BENZ R-Class (W251, V251) R 280 (251.054, 251.154), MERCEDES-BENZ R-Class (W251, V251) R 350 (251.056, 251.156), MERCEDES-BENZ R-Class (W251, V251) R 500 4-matic (251.072, 251.172), MERCEDES-BENZ R-Class (W251, V251) R 280 4-matic (251.062), MERCEDES-BENZ R-Class (W251, V251) R 300 (251.054, 251.154)

The steps may slightly vary depending on the car design.

This tutorial was created based on the replacement procedure for a similar car part on: MERCEDES-BENZ C-Class Saloon (W203) C 240 (203.061)

REPLACEMENT: ENGINE OIL AND FILTER – MERCEDES-BENZ R-CLASS (W251, V251) V6. TOOLS YOU NEED:



- Wire brush
- All-purpose cleaning spray
- Torque wrench
- Combination spanner #13
- Drive socket # 8
- Drive socket # 13
- Oil filter cup socket 74/15F
- Ratchet wrench
- Oil drain pan
- Funnel
- Flat Screwdriver
- Microfibre towel
- Fender cover

Buy tools

Replacement: engine oil and filter – MERCEDES-BENZ R-Class (W251, V251) V6. Tip from AUTODOC:

- Replace the oil filter every time when changing motor oil.
- Use only new O-rings during installation.
- Wear gloves to prevent contact with hot liquid.
- Please note: all work on the car – MERCEDES-BENZ R-Class (W251, V251) V6 – should be done with the engine switched off.

CARRY OUT REPLACEMENT IN THE FOLLOWING ORDER:

1. Open the hood.
2. Use a fender protection cover to prevent damaging paintwork and plastic parts of the car.
3. Unscrew the oil filler plug.

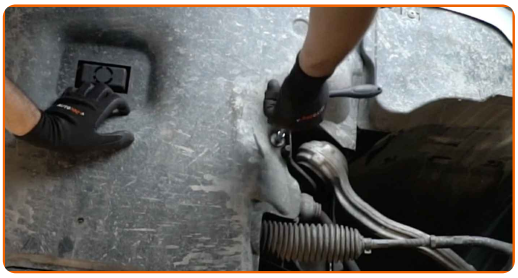


4. Lift the car using a jack or place it over an inspection pit.

Replacement: engine oil and filter – MERCEDES-BENZ R-Class (W251, V251) V6. Professionals recommend:

- The vehicle must be on even keel, and if it is at an angle, the drain plug must be at the lowest point.

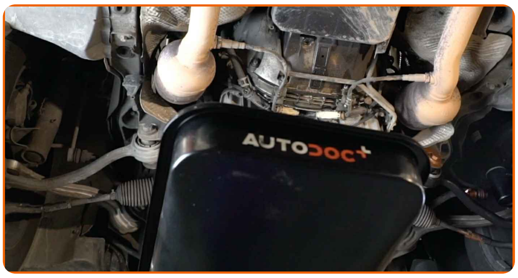
5 Undo the fasteners of the oil pan lower cover. Use a drive socket #8. Use a ratchet wrench.



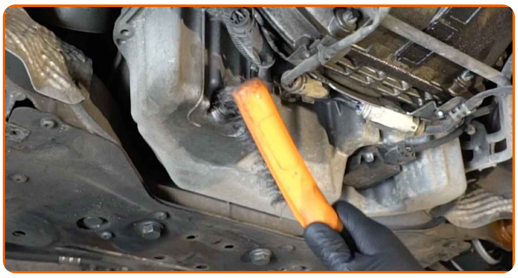
6 Remove the oil pan cover.



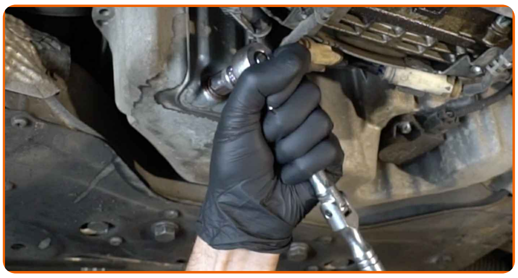
7 Put a waste oil container with at least 9 l capacity under the drainage hole.



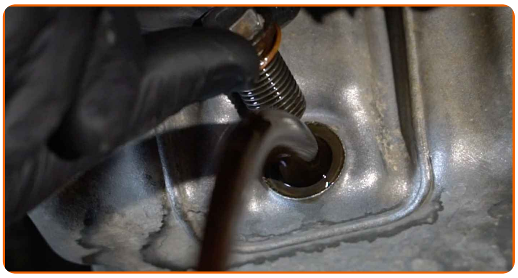
8 Clean the area of the oil pan drainage hole. Use a wire brush. Use all-purpose cleaning spray.



9 Unscrew the drain plug. Use a combination spanner #13. Use a drive socket #13. Use a ratchet wrench.



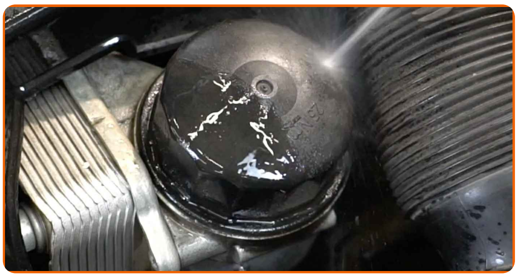
10 Drain the used oil.



Replacement: engine oil and filter – MERCEDES-BENZ R-Class (W251, V251) V6. Tip from AUTODOC:

- Caution! The oil may be hot.
- Wait until the oil has completely drained from the drainage hole.

11 Clean the oil filter housing cap.



12 Unscrew the filter housing cap together with the old filter element. Use the 74/15F socket. Use a ratchet wrench.



13 Prepare a container for the old oil filter.

14 Put the old oil filter in the container.



Replacement: engine oil and filter – MERCEDES-BENZ R-Class (W251, V251) V6. AUTODOC recommends:

- Move up the container. The oil starts to drain out of the drainage hole immediately after you have removed the oil filter.

15 Cover the oil filter housing with a microfibre towel to prevent dirt and foreign objects from getting into the system.

16 Detach the oil filter from the filter cover.



17 Remove old o-rings from the oil filter cover. Use a flat screwdriver.



18 Clean the oil filter housing cap. Use all-purpose cleaning spray.



19 Install new O-rings and a new oil filter to their mounting seats on the filter cover.



Please note!

- Make sure to install the filter correctly. Don't mix up the sides of the part.

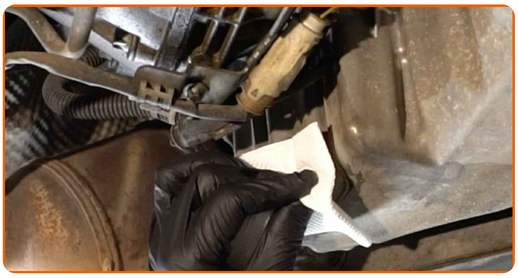
20 Lubricate the rubber seal of the new filter with a little amount of fresh oil.

21 Remove the microfibre towel from the oil filter housing.

22 Install a new oil filter housing cover and tighten it. Use the 74/15F socket. Use a torque wrench. Tighten it to 25 Nm torque.



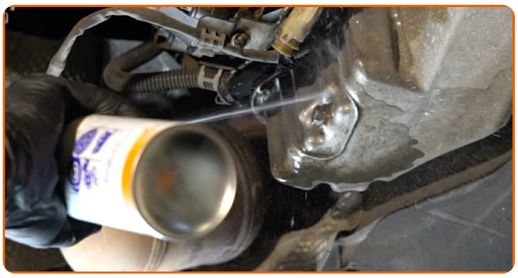
23 Clean the area of the oil pan drainage hole.



24 Screw in the new drainage plug and tighten it. Use a drive socket #13. Use a torque wrench. Tighten it to 30 Nm torque.



25 Clean the area of the oil pan drainage hole. Use all-purpose cleaning spray.



26 Reinstall the oil pan lower cover.



27 Tighten the fasteners of the oil pan lower cover. Use a drive socket #8. Use a ratchet wrench.



28 Lower the car.

29 Remove the oil filler cap.



30 Insert the funnel.



31 Pour oil into the engine through the filler. Required amount of oil: 8 L.



Replacement: engine oil and filter – MERCEDES-BENZ R-Class (W251, V251) V6. Tip:

- Use the oil recommended by the manufacturer.

32 Install the oil filler cap.



33 Tighten the oil filler cap.



34 Switch on the ignition.

35 Check the oil level using the on-board computer. Top up oil if necessary.

36 Run the engine for a few minutes. After the oil pressure warning light goes out, stop the engine. Switch off the ignition.



Replacement: engine oil and filter – MERCEDES-BENZ R-Class (W251, V251) V6. AUTODOC experts recommend:

- Make sure that the oil filler cap is properly tightened.
- Check the threaded plug of the drainage hole and the oil filter seal for tightness. If necessary, carefully tighten them up.

37 Remove the fender protection cover.

38 Close the hood.

Replacement: engine oil and filter – MERCEDES-BENZ R-Class (W251, V251) V6. Tip from AUTODOC:

- Note that oil pressure warning light, which indicates insufficient pressure in the lubrication system, may be on for a longer time than usual. After a few seconds, the oil will fill all the channels, and the light will go out.
- To protect the environment from pollution, be sure to dispose of the used filters at special collection points.

WELL DONE!

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